

CTENODACTYLOMYIA WATSONI FELT, A GALL MIDGE PEST OF SEAGRAPE, COCCOLOBA UVIFERA L., IN FLORIDA^{1/}
(DIPTERA:CECIDOMYIIDAE)

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INTRODUCTION: This gall midge is commonly called the seagrape blister gall. It produces numerous unsightly, blisterlike galls (Fig. 1 & 2) on leaves, thus substantially decreasing the value of infested plants in nurseries or in landscape situations. Seagrape is the only known host plant. The overall percentage of plants infested appears low.

DISTRIBUTION: This midge is endemic to the southern half of Florida. Most of the records are from Palm Beach to Homestead.

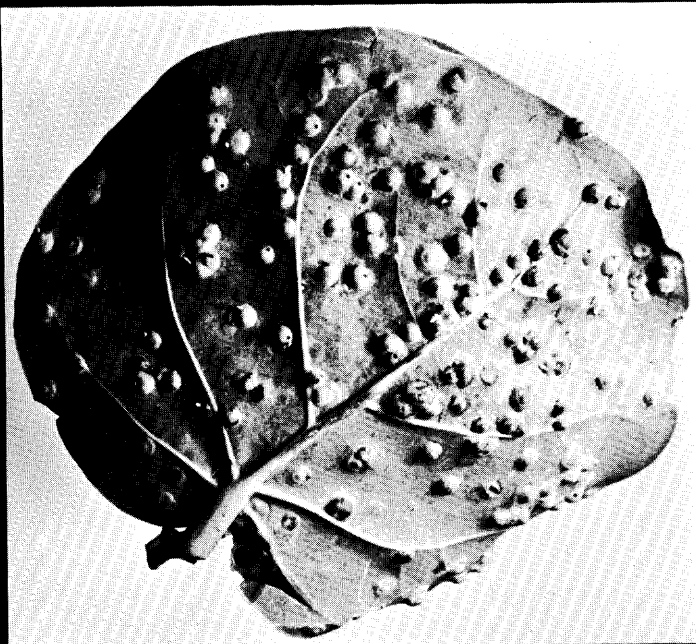


FIG. 1: LOWER SURFACE OF SEAGRAPE LEAF SHOWING GALLS OF CTENODACTYLOMYIA WATSONI FELT. TWO-THIRDS NATURAL SIZE.



FIG. 2: UPPER SURFACE OF SAME LEAF SHOWN IN FIG. 1.



FIG. 3: SEAGRAPE LEAF, SHOWING EMPTY GALL, PUPAL CASE, AND ADULT MIDGE, C. WATSONI FELT.

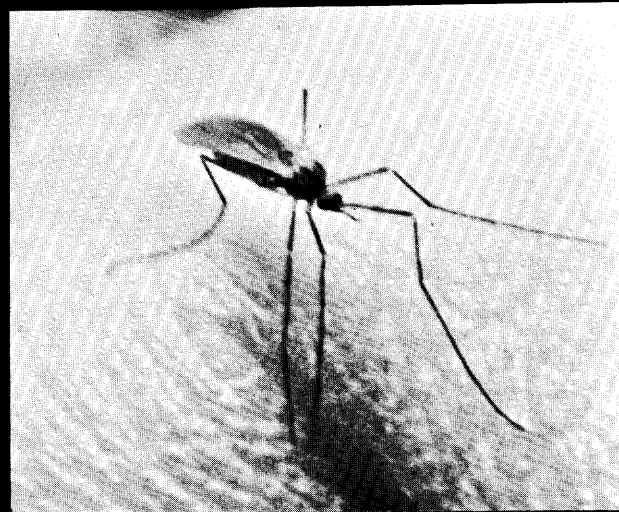


FIG. 4: ADULT GALL MIDGE, C. WATSONI, RESTING ON FINGER.

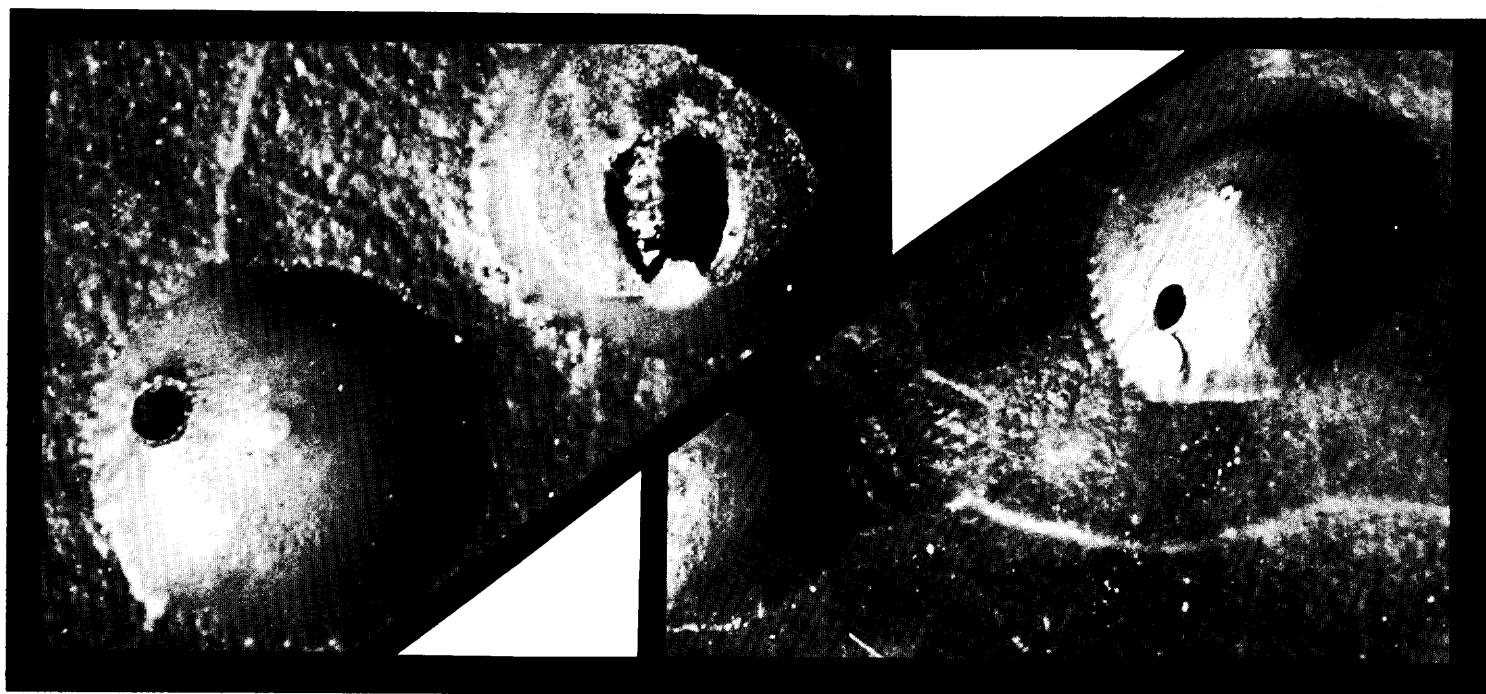


Fig. 5: SEAGRAPE BLISTER GALLS, CTENODACTYLOMYIA WATSONI FELT, SHOWING EMERGENCE HOLES, EXCEPT UPPERMOST GALL CUT OPEN TO SHOW SPECIMEN IN CAVITY.

IDENTIFICATION: APPARENTLY SEAGRAPE HAS NO OTHER PESTS THAT RESEMBLE THE BLISTERLIKE GALLS OF THIS MIDGE. CTENODACTYLOMYIA WATSONI FELT IS THE ONLY SPECIES INCLUDED IN ITS GENUS. FELT (1915:199-202, Fig. 2-4) DESCRIBED THE GENUS AND THE SPECIES, GIVING CONSIDERABLE TECHNICAL DETAILS ON THE MORPHOLOGY OF THE SPECIES AND SEPARATION OF THE GENUS FROM NEAR RELATIVES. HE STRESSED THE UNUSUAL PECTINATE CLAWS AND VERY LONG, NARROW WINGS OF THE ADULTS (Fig. 3 & 4). THE GALLS USUALLY ARE 5 MM IN DIAMETER, DARK GREEN, AND WITH A SMALL MEDIAN NIPPLE (Fig. 5). AN INDIVIDUAL GALL MAKES APPROXIMATELY THE SAME SIZE BUMP ON EACH SIDE OF THE LEAF (Fig. 1 & 2). LARVAE ARE YELLOWISH AND HAVE THE SEGMENTATION DISTINCT AND TAPERING TOWARD THE POSTERIOR EXTREMITY. PUPAL CASES ARE 3 MM IN LENGTH, WHITISH TRANSPARENT, AND ARE FOUND IN OR BY THE EXIT HOLE OF THE GALL (Fig. 3). THE CEPHALIC HORNS ARE LARGE, CHITINOUS, ADJACENT TO EACH OTHER, STRONGLY SERRATE, AND TAPERING TO THE MEDIAN LINE. ADULTS ARE 3 MM LONG, NOT COUNTING THE LONG ANTENNAE OR LEGS (Fig. 3 & 4).

LIFE HISTORY: MUCH REMAINS TO BE LEARNED ABOUT THIS MIDGE. FELT (1940:237) LISTED "SUMMER" AS THE TIME OF YEAR FOR THIS GALL; HOWEVER, THE TYPE SERIES WAS REARED FROM GALLS COLLECTED MARCH 18, AND DPI HAS RECORDS OF THIS SPECIES FOR OCTOBER, NOVEMBER, FEBRUARY, APRIL AND MAY, WITH MOST OF THE RECORDS OCCURRING IN APRIL.

CONTROL: CONTROL MEASURES USUALLY ARE NOT NECESSARY; FURTHERMORE, THIS PEST HAS NOT BEEN SUFFICIENTLY WIDESPREAD AND DAMAGING TO REQUIRE RESEARCH EXPENDITURES NECESSARY TO DETERMINE EFFECTIVE MATERIALS AND TIMING OF APPLICATIONS.

LITERATURE CITED:

- FELT, E. P. 1915. NEW GENERA AND SPECIES OF GALL MIDGES. PROC. U. S. NAT. MUS. 48 (2072): 195-211, 15 Figs.
FELT, E. P. 1940. PLANT GALLS AND GALL MAKERS. CONSTOCK PUB. CO., ITHACA, N. Y. 364 P., 344 Figs.